

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle

5755 8th Street East

Tacoma, WA 98424

Tel: (253)922-2310

TestAmerica Job ID: 580-44552-1

Client Project/Site: Clean Harbors

For:

ISI Environmental Services

215 S Laura

Wichita, Kansas 67211

Attn: Brady Gerber



Authorized for release by:

7/30/2014 9:29:50 AM

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Definitions . . . . .	4
Client Sample Results . . . . .	5
QC Sample Results . . . . .	8
Chronicle . . . . .	9
Certification Summary . . . . .	10
Sample Summary . . . . .	11
Chain of Custody . . . . .	12
Receipt Checklists . . . . .	13

## Case Narrative

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

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**Job ID: 580-44552-1**

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**Laboratory: TestAmerica Seattle**

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### Narrative

#### Receipt

The samples were received on 7/22/2014 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Definitions/Glossary

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

**Client Sample ID: J8-F1**

**Date Collected: 07/21/14 14:35**

**Date Received: 07/22/14 09:35**

**Lab Sample ID: 580-44552-1**

**Matrix: Solid**

**Percent Solids: 82.4**

## Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		29		ug/Kg	☼	07/26/14 11:43	07/29/14 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108		51 - 129				07/26/14 11:43	07/29/14 12:56	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10		%			07/22/14 15:49	1
Percent Moisture	18		0.10		%			07/22/14 15:49	1

# Client Sample Results

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

**Client Sample ID: J8-F2**

**Date Collected: 07/21/14 17:00**

**Date Received: 07/22/14 09:35**

**Lab Sample ID: 580-44552-2**

**Matrix: Solid**

**Percent Solids: 85.1**

## Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		28		ug/Kg	☼	07/26/14 11:43	07/29/14 13:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	82		51 - 129				07/26/14 11:43	07/29/14 13:19	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10		%			07/22/14 15:49	1
Percent Moisture	15		0.10		%			07/22/14 15:49	1

# Client Sample Results

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

**Client Sample ID: Dup-5**

**Date Collected: 07/21/14 00:00**

**Date Received: 07/22/14 09:35**

**Lab Sample ID: 580-44552-3**

**Matrix: Solid**

**Percent Solids: 82.8**

## Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		29		ug/Kg	☼	07/26/14 11:43	07/29/14 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	104		51 - 129				07/26/14 11:43	07/29/14 13:42	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	83		0.10		%			07/22/14 15:49	1
Percent Moisture	17		0.10		%			07/22/14 15:49	1

# QC Sample Results

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

## Method: 8151A - Herbicides (GC/MS)

Lab Sample ID: MB 580-165025/1-A

Matrix: Solid

Analysis Batch: 165272

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 165025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		25		ug/Kg		07/26/14 11:42	07/29/14 11:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	100		51 - 129				07/26/14 11:42	07/29/14 11:48	1

Lab Sample ID: LCS 580-165025/2-A

Matrix: Solid

Analysis Batch: 165272

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 165025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	667	255		ug/Kg		38	23 - 117
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	97		51 - 129				

Lab Sample ID: LCSD 580-165025/3-A

Matrix: Solid

Analysis Batch: 165272

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 165025

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dalapon	667	215		ug/Kg		32	23 - 117	17	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	79		51 - 129						

Lab Sample ID: 580-44552-3 MS

Matrix: Solid

Analysis Batch: 165272

Client Sample ID: Dup-5

Prep Type: Total/NA

Prep Batch: 165025

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	ND		804	291		ug/Kg	✱	36	23 - 117
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4-Dichlorophenylacetic acid	86		51 - 129						

Lab Sample ID: 580-44552-3 MSD

Matrix: Solid

Analysis Batch: 165272

Client Sample ID: Dup-5

Prep Type: Total/NA

Prep Batch: 165025

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dalapon	ND		768	346		ug/Kg	✱	45	23 - 117	17	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2,4-Dichlorophenylacetic acid	89		51 - 129								

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# Lab Chronicle

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

**Client Sample ID: J8-F1**

**Date Collected: 07/21/14 14:35**

**Date Received: 07/22/14 09:35**

**Lab Sample ID: 580-44552-1**

**Matrix: Solid**

**Percent Solids: 82.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			165025	07/26/14 11:43	RBD	TAL SEA
Total/NA	Analysis	8151A		1	165272	07/29/14 12:56	ERB	TAL SEA
Total/NA	Analysis	D 2216		1	164624	07/22/14 15:49	PAB	TAL SEA

**Client Sample ID: J8-F2**

**Date Collected: 07/21/14 17:00**

**Date Received: 07/22/14 09:35**

**Lab Sample ID: 580-44552-2**

**Matrix: Solid**

**Percent Solids: 85.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			165025	07/26/14 11:43	RBD	TAL SEA
Total/NA	Analysis	8151A		1	165272	07/29/14 13:19	ERB	TAL SEA
Total/NA	Analysis	D 2216		1	164624	07/22/14 15:49	PAB	TAL SEA

**Client Sample ID: Dup-5**

**Date Collected: 07/21/14 00:00**

**Date Received: 07/22/14 09:35**

**Lab Sample ID: 580-44552-3**

**Matrix: Solid**

**Percent Solids: 82.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			165025	07/26/14 11:43	RBD	TAL SEA
Total/NA	Analysis	8151A		1	165272	07/29/14 13:42	ERB	TAL SEA
Total/NA	Analysis	D 2216		1	164624	07/22/14 15:49	PAB	TAL SEA

## Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

## Certification Summary

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

### Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-112	05-27-15
California	NELAP	9	01115CA	01-31-14 *
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

\* Certification renewal pending - certification considered valid.

TestAmerica Seattle

## Sample Summary

Client: ISI Environmental Services  
Project/Site: Clean Harbors

TestAmerica Job ID: 580-44552-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-44552-1	J8-F1	Solid	07/21/14 14:35	07/22/14 09:35
580-44552-2	J8-F2	Solid	07/21/14 17:00	07/22/14 09:35
580-44552-3	Dup-5	Solid	07/21/14 00:00	07/22/14 09:35



Tacoma, WA 98424  
phone 253.922.2310 fax 253.922.5047

## Chain of Custody Record

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

**TestAmerica Laboratories, Inc.**

[illegible]

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

## Login Sample Receipt Checklist

Client: ISI Environmental Services

Job Number: 580-44552-1

**Login Number: 44552**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Abello, Andrea N**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	See NCM
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	